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IFW

Attorney Docket No. 47624-DVC (71417)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: J. Isner, et al.

U.S.S.N.: 10/714,574

EXAMINER: Not yet assigned

FILED: November 14, 2003

GROUP: 1646

FOR: COMPOSITIONS AND METHODS FOR MODULATING VASCULARIZATION

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CERTIFICATE OF EXPRESS MAIL

I, Patricia A. Barnes, hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as "Express Mail Post Office To Addressee" service, **Label No. EV517913589US** in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on **November 3, 2004**.

By Patricia A. Barnes  
Patricia A. Barnes

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COMMISSIONER FOR PATENTS  
P. O. BOX 1450  
ALEXANDRIA, VA 22313-1450

Date: November 3, 2004

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto. Copies of the references are not enclosed.

II. COPIES

- a. \_\_\_\_\_ Submitted herewith is a legible copy of (i) each U.S and foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- b. \_\_\_\_\_ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_. The following references were submitted to, and/or cited by, the Office in the prior application (s) and, therefore, are not required to be provided in this application.

III. CONCISE EXPLANATION OF THE RELEVANCE  
(check at least one box)

- a.   X   Except as may be indicated below in (b), all of the patents, publications or other information are in the English language or were cited in an English language Search Report, a copy of which is attached hereto (concise explanation not required).
- b. \_\_\_\_\_ A concise explanation of the relevance of all patents, publications or other information listed that is not in the English language is as follows:
- c. \_\_\_\_\_ The following additional information is provided for the Examiner's consideration:

**FEES**

IV. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(b)  
(check one box)

- a. \_\_\_\_\_ within three months of the filing date of a national application (37 C.F.R. § 1.97(b) (1). No fee or certification is required.
- b. \_\_\_\_\_ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b) (2). No fee or certification is required.

- c.   X   Before the mailing date of a first Action on the merits (37 C.F.R. § 1.97(b) (3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below, or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

V. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(c):  
(check one box)

before the mailing date of a Final Office Action under 37 C.F.R. § 1.113 (See 37 C.F.R. § 1.97(c) (1)) or before the mailing date of a Notice of Allowance under 37 C.F.R. § 1.311 (See 37 C.F.R. § 1.97(c) (2)).

- a.        No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. §1.17(p).  
or  
b.        See the certification below. No fee is required.

VI. STATEMENT UNDER 37 C.F.R. § 1.97(e) (check only one box)

The undersigned hereby states that

- a.        each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or  
  
b.        no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

c. \_\_\_\_\_ Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned certifies that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

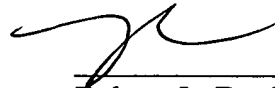
\_\_\_\_\_ Please charge Deposit Account No. 04-1105 in the amount of \$180.00 for the above-indicated fee. A triplicate copy of this paper is attached.

X No fee is required.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule, with a petition if necessary, and charge the appropriate fee to Deposit Account No. **04-1105**.

Respectfully submitted,

Date: 3 Nov. 2004



\_\_\_\_\_  
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY DOCKET NO. 47624-DVC (71417)	SERIAL NO. 10/714,574
	APPLICANT(S) Jeffrey M. Isner, et al.	
	FILING DATE November 14, 2003	GROUP NO. 1646

### UNITED STATES PATENT DOCUMENTS

EXAM. INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,229,496	7/20/93	Deeley et al.			10/6/88
	AB	5,240,848	8/31/93	Keck et al.			7/10/89

### FOREIGN PATENT DOCUMENTS

						SUBCLASS	TRANSLATION YES/NO
	BA	86/00639	30/01/86	World			Y
	BB	96/39421	12/12/96	World			Y
	BC	96/39515	12/12/96	World			Y

### OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

CA	Aglietta, M. <i>J. Clin. Invest.</i> , 83: 551-557
CB	Andrews, et al., <i>Blood</i> , 67:842 (1986)
CC	Asahara, <i>Science</i> , 275: 964-967 (1997)
CD	Brugger et al., <i>N. Engl. J. Med.</i> , 333: 283 (1995)
CE	Bussolini, et al., <i>J. Clin. Invest.</i> , 87: 986-995 (1991)
CF	Cantrell, et al., <i>Proc. Natl. Acad. Sci.</i> 82: 6250-24 (1985)

EXAMINER:	DATE:
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**FOREIGN PATENT DOCUMENTS**

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**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

	CG	Clark, et al., <i>Science</i> , 236: 1229-1237 (1987)
	CH	Dainiak, <i>Blood</i> , 78: 264 (1991)
	CI	Dedhar, et al., <i>Proc. Natl. Acad. Sci USA</i> , 85: 9253-9257 (1988)
	CJ	Folkman, et al., <i>J. Biol Chem.</i> , 267: 10931 (1992)
	CK	Friedlander, et al., <i>Science</i> , 270: 1500 (1995)
	CL	Gasson, <i>Blood</i> , 77: 1131 (1991)
	CM	Gianni et al., <i>Lancet</i> , 2: 580-584 (1989)
	CN	Hynes, R.O. <i>Cell</i> , 48: 549 (1987)

<b>EXAMINER:</b>	<b>DATE:</b>
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<b>OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)</b>							
	CO	Isner, et al., <i>Lancet</i> , 348: 370 (1996)					
	CP	Ito, et al., <i>Lab. Invest.</i> , 72: 532 (1995)					
	CQ	Janssens, et al., <i>J. Biol. Chem</i> , 267: 14519 (1992)					
	CR	Kim, et al., <i>Blood</i> , 91: 100 (1998)					
	CS	Lamas, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 89: 6348 (1992)					
	CT	Liesveld, et al., <i>Leukemia</i> , 8: 2111 (1994)					
<b>EXAMINER:</b>						<b>DATE:</b>	

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<b>OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)</b>							
	CU	Millauer, et al., <i>Cell</i> , 72: 835 (1993)					
	CV	Pardanaud, et al., <i>Development</i> , 105: 473 (1989)					
	CW	Torok-Storb, <i>Blood</i> , 72: 373 (1988)					
	CX	Risau, <i>FASEB J.</i> , 9: 926 (1995)					
	CY	Sato, et al., <i>Nature</i> , 376: 70 (1995)					
	CZ	Senger, et al., <i>Am. J. Pathol.</i> , 149: 293 (1996)					
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FORM PTO-1449

ATTY DOCKET NO.

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10/714,574

## INFORMATION DISCLOSURE STATEMENT

APPLICANT(S)

Jeffrey M. Isner, et al.

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1646

## UNITED STATES PATENT DOCUMENTS

EXAM. INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

CAA	Shalaby, et al., <i>Nature</i> , 376: 62 (1995)
CBB	Sieff, <i>J. Clin. Invest</i> , 79: 1549-1557 (1987)
CCC	Socinski, et al., <i>Lancet</i> , 1: 1194-1198 (1988)
CDD	Soldi, et al., <i>Blood</i> , 863-872 (1997)
CEE	Soligo, et al., <i>Leukemia</i> , 5: 1026 (1991)
CFF	Takeshita et al., <i>Laboratory</i> , 75: 487 (1996)

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

CGG	Takeshita, et al., <i>J. Clin. Invest.</i> , 93: 662-670 (1994)
CHH	Tsurumi, et al., <i>Circulation</i> , 94: 3281 (1996)
CII	Tschudi, et al., <i>J. Clin. Invest.</i> , 98: 899 (1996)
CJJ	Vecchi, et al., <i>Eur. J. Cell Biol.</i> , 63: 247 (1994)
CKK	Voyta, et al., <i>J. Cell. Biol.</i> , 99: 2034 (1984)
CLL	Weyrich, et al., <i>Circ. Res.</i> 75: 692 (1994)
CMM	Yamaguchi, et al., <i>Development</i> , 118: 489 (1993)

EXAMINER:	DATE:
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**INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Docket Number (Optional)

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Group Art Unit

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**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	CNN	Bradbury, et al., <u>Nature</u> 298:686-688 (1982)

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE STATEMENT</b>				<b>ATTY DOCKET NO.</b> <b>47624-DVC (71417)</b>		<b>SERIAL NO.</b> <b>10/714,574</b>	
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<b>UNITED STATES PATENT DOCUMENTS</b>							
<b>EXAM. INITIAL</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FIL. DATE IF APPR</b>
	AA	4,808,402	02/28/89	Leibovivh et al.			
	AB	4,879,282	11/07/89	Saliba, Jr.			
	AC	5,880,090	03/09/99	Hammond et al.			
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>TRAN YES/NO</b>
<b>OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)</b>							
	CA	Sunderkotter et al. "Macrophage-Derived Angiogenesis Factors", <i>Pharmac. Ther.</i> , 1991, Vol. 51, pp. 195-216.					
	CB	Takahashi et al. "Ischemia- and Cytokine-Induced Mobilization Of Bone Marrow-Derived Endothelial Progenitor Cells For Neovascularization", <i>Nature Medicine</i> , April 1999, Vol. 5, No. 4, pp. 434-438.					
	CC	Copy of Int'l Search Report dated 8 July 1999 re Int'l Appln. No. PCT/US99/05130.					
<b>Examiner:</b>					<b>Date:</b>		

# INFORMATION DISCLOSURE CITATION

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,612,211 A	3/1997	Wilson et al.			
	AB	5,941,868 A	8/1999	Kaplan et al.			
	AC	5,980,887 A	11/1999	Isner et al.			
	AD	6,121,246 A	9/2000	Isner			
	AE	6,258,787 B1	7/2001	Isner			
	AF	5,646,043 A	7/1997	Emerson et al.			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	CA	Eck, S.L. & Wilson, J.M. "Gene-Based Therapy", In Goodman & Gilman's The Pharmacological Basis of Therapeutics, Ninth Edition, pp. 77-101, 1996.
	CB	Verma, I.M. & Somia, N. "Gene Therapy-Promises, Problems And Prospects", Nature 389: 239-242, 1997.

EXAMINER

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INITIAL

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CC

Miller, N. & Vile, R. "Targeted Vectors For Gene Therapy" FASEB J. 9: 190-199, 1995.

CD

Deonarain, M.P. "Ligand-Targeted Receptor-Mediated Vectors For Gene Delivery", Exp. Opin. Ther. Patents 8: 53-69, 1998.

CE

Shi et al. "Evidence For Circulating Bone Marrow-Derived Endothelial Cells, 1998, BLOOD, vol. 92, pp. 362-367.

CF

Ngo et al. "Computational Complexity, Protein Structure Prediction, And The Levinthal Paradox, 1994 In: The Folding Protein And Tertiary Structure Prediction, (Merz, K. et al., eds.), Birkhauser, Boston, pp. 491-495.

CF

Rudinger "Characteristics Of The Amino Acids As Components Of a Peptide Hormone Sequence, 1976. In: Peptide Hormones, (J.A. Parsons, Ed.), University Park Press, Baltimore, pp. 1-7.

EXAMINER

DATE CONSIDERED

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